

Case 338 : Narrative

| | |
|--------------------------------|---|
| Case Vehicle (A): 1999 Ford | Vehicle (B): 2000 Sterling |
| Type: Contour LX, 4-door sedan | Type: CBE, 6-axle truck with dump trailer |
| Driver: 47-year-old male | Driver: 48-year-old male |
| CDC: 12-FDEW-3 | CDC: 99-0000-0 |

SITUATION

[1](#) [2](#) [3](#) On a clear early morning in an urban area, case vehicle (A) was traveling north at an unknown speed in the far-right northbound lane of a five-lane roadway. The road surface was dry, it was dark but the road was lighted, and the speed limit was 40 mph (64 kph). [4](#) Vehicle (B), a truck pulling a dump trailer, was also traveling north in the far-right northbound lane in front of case vehicle (A). When the driver of vehicle (B) slowed to make a right turn onto an intersecting road to travel east, [5](#) the driver of case vehicle (A) was not paying attention and the front of case vehicle (A) struck the rear of vehicle (B). The police report indicated "B-" level injuries for the driver of case vehicle (A) and "O-" level injuries for the driver of vehicle (B). The driver of case vehicle (A) was transported to a local hospital and was later transferred to a trauma center for additional treatment. Case vehicle (A) was towed from the scene, while vehicle (B) was driven from the scene.

GENERAL VEHICLE DAMAGE AND ESTIMATED CRASH SEVERITIES

[6](#) The direct damage to case vehicle (A) extended 146-cm across the entire front and exhibited an over/underride damage pattern. [7](#) [8](#) The maximum crush at the center portion of the front bumper was 27 cm and the maximum crush above the bumper was 53 cm.

[9](#) [10](#) [11](#) [12](#) [13](#) [14](#) [15](#) [16](#) [17](#) [18](#) Using the WinSMASH crash-reconstruction program and c-values measured for case vehicle (A), the following impact severity was calculated for the frontal impact with vehicle (B).

| | | Calculated Velocity Change - kph (mph) | | |
|------------------|----------|--|--------------|-------------|
| Vehicle | Variable | Total | Longitudinal | Latitudinal |
| Case Vehicle (A) | EBS | 33 (21) | -33 (-21) | 0 (0) |

DESCRIPTION OF DAMAGE TO CASE VEHICLE (A)

Exterior

[19](#) The front bumper was crushed, the right portion was bent up, [20](#) and the bumper cover was separated from the right bumper corner, but it was still attached at the left-front corner. The grille and radiator were damaged and the upper radiator support was crushed rearward into the engine compartment. [21](#) The left headlight assembly was displaced and [22](#) the right headlight assembly was broken. [23](#) There was direct damage to the center of the hood, and it was pushed up and to the rear. The damaged hood latch had released and both hood hinges were deformed, but they were not separated. The rear edge of the hood was elevated, but it did not contact the windshield. [24](#) There was a spiderweb crack in the upper-left portion of the windshield from contact by the driver, [25](#) and two spiderweb cracks in the right portion from contact by the passenger airbag cover.

[26](#) On the left side of the vehicle, the front fender was slightly deformed. [27](#) There was no damage to the upper or lower portions of the left A-, B-, or C-pillars, and [28](#) there was no damage to the left-side doors or door glazing and both doors were operational. [29](#) [30](#) There was no damage to the left wheels, although the left wheelbase was reduced 5 cm. There was no damage to the left-rear quarter panel.

[31](#) On the right side of the vehicle, the front fender was crushed and pushed rearward into the front portion of the door panel. [32](#) [33](#) There was no damage to the upper portion of the right A-pillar or the upper and lower portions of the B-, or C-pillars. The lower portion of the right A-pillar was damaged and the right-front door was jammed closed. There was no damage to the right-rear door and there was no damage to the right-side glazing. [34](#) There was no damage to the right-front wheel and no significant change in the right wheelbase. [35](#) The right rear wheel had been replaced by a spare tire. There was no other damage to the right side and [36](#) there was no damage to the rear of case vehicle (A).

Interior

[37](#) This vehicle was equipped with driver and passenger frontal-impact airbags, which deployed during the frontal impact. [38](#) There was no damage to, or contact marks on, the steering-wheel airbag, and [39](#) [40](#) there was no damage to the steering-wheel rim or hub, but the steering column was rotated up. [41](#) There was no damage to the windshield header or the roof structure in the driver area. [42](#) [43](#) There was a black scuff mark on the driver sunvisor and a crack in the windshield just below the sunvisor due to driver contact. [44](#) The upper and mid portions of the instrument panel were undamaged. [45](#) There was a scuff mark on the steering column and [46](#) there were dents in the right and left portions of the knee bolster. [47](#) The toe pan was displaced to the rear in the driver area, but there was no damage to the brake or accelerator pedals. [48](#) There was no damage to the interior panel of the driver door.

[49](#) There was no damage to the center portions of the windshield header, to the roof structure, or to the roof headliner. [50](#) The rearview mirror was separated from its attachment to the windshield, the mirror glass was broken, and there were some cracks that radiated across the center portion of the windshield. [51](#) The center vertical console was not damaged, but [52](#) the floor-mounted console and [53](#) transmission selector were displaced to the right due to driver contact.

[54](#) In the right-front seat area, the windshield header, the roof structure, and the headliner were undamaged. [55](#) The passenger frontal-impact airbag cover contacted and cracked the windshield in two places. [56](#) There was no damage to the passenger frontal-impact airbag, [57](#) although there was a small droplet of blood on the lower right portion of the airbag. [58](#) There was no damage to the glove-box compartment and [59](#) there was no deformation to the floor in the right-front area.

The following intrusion was noted and measured.

| Location | Component | Distance (cm) | Direction |
|------------|-----------|---------------|-----------|
| left front | toe pan | 8 | to rear |

OCCUPANT KINEMATICS AND INJURIES

[60](#) The 5-ft, 10 in, 210-lb, 47-year-old male driver was not using the three-point belt and the steering-wheel airbag deployed. [61](#) There was no physical evidence of belt use on the D-ring, continuous loop, or belt webbing.

During the frontal impact, the unbelted driver moved forward relative to the vehicle interior, into and over the steering-wheel airbag. His head contacted the left sunvisor and the upper portion of the windshield, [62](#) [63](#) as evidenced by a scuff mark on the sunvisor and [64](#) [65](#) cracks in the windshield, resulting in a contusion to the right side of the forehead. He sustained a right ulna styloid fracture, possibly due to contact with the transmission selector or the floor console that houses the transmission selector, [66](#) [67](#) [68](#) as evidenced by scuff marks on the console and the fact that the transmission selector was deflected to the right. [69](#) [70](#) He sustained right comminuted anterior and posterior acetabular fractures with right hip dislocation, probably from right knee contact with the knee bolster and/or the steering column, as evidenced by scuff marks on the steering column and a dent in the right portion of the knee bolster. [71](#) He sustained a fracture at the medial aspect of the right navicular, probably due to contact with

the foot controls. [72](#) There was also a dent in the left portion of the knee bolster, probably from contact by the driver's left knee, but no injuries were associated with this contact.

The following table [73](#) and attached drawing summarize the injuries for the unbelted driver.

| Occupant: Driver | Age: 47 years | Gender: Male | | |
|--|-------------------------------|----------------------|---------------|--------------------------------------|
| Restraints: 3-point belt not worn; airbag deployed | Stature: 178 cm (5 ft, 10 in) | Mass: 95 kg (210 lb) | | |
| Injury Description | A.I.S. | Injury Source | | |
| | | Definite | Probable | Possible |
| — | — | | | |
| Contusion, right side of forehead | 1 | Sunvisor, windshield | — | — |
| Right ulna styloid fracture | 2 | — | — | Transmission selector, floor console |
| Right comminuted anterior and posterior acetabular fractures, with hip dislocation | 3 | — | — | Steering column, knee bolster |
| Right navicular fracture, medial aspect | 2 | — | Foot controls | — |
| Maximum A.I.S. Level | 3 | — | — | — |
| Injury Severity Score | 10 | — | — | — |

CASE NO.: 888-88

CASE RE-ROLE: 888 Ford

TYPE: Complete L5, Pelvic series

DESCRIPTION: 60-year-old male

STATUS: 5'8" tall (6'4", 6'6") 160 lb 65 kg 170 cm

REMARKS: 2-point back test worn, airbag deployed

SEVERITY: (L5) 1 100 1 100

Contusions, right
side of forehead
(1)



Right ulna-epitoid
fracture
(2)

Right comminuted anterior
and posterior acetabular
fractures, with hip dislocation
(3)

Right mandibular fracture,
medial aspect
(2)



Case No.: 20408
Case Info. (s): 1999 Ford
Type: Collision LK, 4-door sedan
Driver: 40-year-old male
Vehicle ID: 2000 Sterling CRU, 4-door-hatch-back

Weather: Clear
Road Surface: Dry
Road Construction: Asphalt
Light Conditions: Daylight

NORTH →

posted speed limit 30 mph (34 mph)



Vehicle Report

General

Conditions

| Variable Number and Name | Code Value | Code Description | Other Options |
|--|------------|----------------------|----------------------|
| V206 — Urban/Rural Area | 1 | Urban | more |
| V207 — Limited Access Highway | 0 | No | more |
| V208 — Road Total Lanes | 4 | 4 lanes or more | more |
| V209 — Intersecting Road Total Lanes | 2 | 2 lanes | more |
| V210 — Road Surface Type | 1 | Asphalt | more |
| V211 — Road Defects | 0 | No | more |
| V212 — Construction Zone | 0 | No | more |
| V213 — Road Alignment Vertical Plane | 1 | Level | more |
| V214 — Road Alignment Horizontal Plane | 1 | Straight | more |
| V215 — Surface Covering | 10 | Dry | more |
| V216 — Visibility Limitation | 0 | None | more |
| V217 — Visibility Obstruction | 0 | None | more |
| V218 — Speed Limit | 3 | 61-70 km/h .. 40 mph | more |
| V219 — Precipitation Type | 0 | None | more |
| V220 — Precipitation Rate | 8 | Not applicable | more |
| V221 — Temperature | 9 | Unknown | more |
| V222 — Crosswind | 9 | Unknown | more |
| V223 — Light Conditions | 4 | Dark, lighted | more |
| V224 — Mechanical Malfunction Mention | 0 | No | more |
| V225 — Case Vehicle and Object | 0 | No | more |

| | | | |
|---|----|-------------------------------|----------------------|
| V226 — Case Vehicle Rollover | 0 | No | more |
| V227 — Case Vehicle Ran Off Roadway | 0 | No | more |
| V228 — Moving Case Vehicle/Contacted Moving Vehicle | 1 | Yes | more |
| V229 — Case Vehicle/Contacted Stopped Vehicle | 0 | No | more |
| V230 — Stopped Case Vehicle/Contactd Vehicle | 0 | No | more |
| V231 — Total Vehicles Hit By Case Vehicle | 1 | 1 vehicle | more |
| V232 — Any Fire in Crash | 0 | No | more |
| V233 — Max Police Severity-PAR | 2 | B - Non-Incapacitating Injury | more |
| V234 — Driver Alcohol Involvement | 0 | Had not been drinking | more |
| V235 — Driver Alcohol BAC | 80 | Not tested | more |
| V236 — Driver Impairment Mention | 0 | No | more |
| V237 — Driven/Towed From Scene | 2 | Towed Due to Damage | more |

Other Vehicle

| Variable Number and Name | Code Value | Code Description | Other Options |
|---|--------------|------------------|----------------------|
| V301 — Other Vehicle VIN | 2FWYEXYB1YAH | — | — |
| V302 — Other Vehicle Manufacturer/Body Code | 27434 | — | — |
| V303 — Other Vehicle Manufacturer | 274 | — | — |
| V304 — Other Vehicle Body Code | 34 | Straight truck | more |
| V305 — Other Vehicle Make/Model | 8110 | — | — |

| | | | |
|--|--------|-----------------------------------|----------------------|
| V306 — Other Vehicle Model Year | 2000 | — | — |
| V307 — Other Vehicle Mass | 999999 | Unknown | more |
| V308 — Other Vehicle Number | 0 | No separate report | more |
| V309 — Other Vehicle Number of Occupants | 01 | — | — |
| V310 — Other Vehicle Traveling Speed | 997 | Speed not excessive (but unknown) | more |
| V311 — Highest Police Injury Severity | 0 | 0 - No Injury | more |
| V312 — Other Vehicle Type | 34 | Straight truck | more |
| V313 — Other Vehicle Wheelbase (cm) | 999 | Unknown wheelbase | more |
| V314 — Average Track Width | 999 | Unknown | more |
| V315 — Overall Length | 999 | Unknown | more |
| V316 — Overall Width (OAW) | 999 | Unknown | more |
| V317 — Front Overhang (FOH) | 999 | Unknown | more |
| V318 — Rear Overhang (ROH) | 999 | Unknown | more |
| V319 — Undeformed End Width (UEW) | 999 | Unknown | more |
| V320 — Engine Displacement | 9.9 l | — | — |
| V321 — Engine: Number of Cylinders | 99 | Unknown | more |
| V322 — Direct Damage Length (DDL) | 999 | Unknown | more |
| V323 — Front-End Overlap % (FEO) | 99 | Missing or Not applicable | more |
| V324 — Vehicle Overlap % (VOL) | 99 | Missing or Not applicable | more |

Case Vehicle

General

| Variable Number and Name | Code Value | Code Description | Other Options |
|------------------------------------|--------------|-------------------------|----------------------|
| V401 — VIN | 1FAFP6538XK1 | — | — |
| V402 — Manufacturer/Body Code | 12128 | — | — |
| V403 — Vehicle Manufacturer | 121 | Ford | more |
| V404 — Vehicle Body Code | 28 | — | — |
| V405 — Make/Model Code | 0208 | Contour | more |
| V406 — Model Year | 1999 | — | — |
| V407 — Vehicle Mass | 001256 kg | — | — |
| V408 — Odometer Reading | 134673 miles | — | — |
| V409 — Number of Occupants | 01 | — | — |
| V410 — Traveling Speed | 999 | Unknown | more |
| V411 — Body Type | 14 | 4-door sedan | more |
| V412 — Stolen Vehicle | 8 | Not currently collected | more |
| V413 — Body Structure | 2 | Unitized | more |
| V414 — Transmission Type | 1 | Automatic | more |
| V415 — Transmission Lever Location | 2 | Console | more |
| V416 — Steering | 1 | Power | more |
| V417 — Brakes | 1 | Power | more |
| V418 — Brake Type | 2 | Disc - front wheels | more |
| V419 — Brake Anti-lock Device | 1 | Two-wheel | more |
| V420 — Air Conditioning in Vehicle | 8 | Not currently collected | more |
| V421 — Drive Type | 2 | Front wheel | more |
| V422 — Dual Rear Wheels | 0 | No | more |

| | | | |
|---------------------------------------|--------|---------------------------|----------------------|
| V423 — Original Restraint System Type | 3 | Airbag | more |
| V424 — Equipped With Roll Bar | 0 | No | more |
| V425 — Roof Type | 1 | Solid | more |
| V426 — Wheelbase | 270 cm | — | — |
| V427 — Anti-lacerative Glass | 0 | None | more |
| V428 — Average Track Width | 150 cm | — | — |
| V429 — Overall Length | 469 cm | — | — |
| V430 — Overall Width (OAW) | 176 cm | — | — |
| V431 — Front Overhang | 095 cm | — | — |
| V432 — Rear Overhang | 104 cm | — | — |
| V433 — Undeformed End Width (UEW) | 146 cm | — | — |
| V434 — Engine Displacement | 2.0 l | — | — |
| V435 — Engine: Number of Cylinders | 04 | — | — |
| V436 — Direct Damage Length (DDL) | 146 cm | — | — |
| V437 — Front End Overlap % (FEO) | 99 | Missing or Not applicable | more |
| V438 — Vehicle Overlap % (VOL) | 99 | Missing or Not applicable | more |

Case Vehicle

Damage

Description

| Variable Number and Name | Code Value | Code Description | Other Options |
|--|------------|---|----------------------|
| V501 — Maximum Crush - Front | 053 cm | — | — |
| V502 — Maximum Crush - Right Side | 000 cm | No crush (or less than 1 cm.) | more |
| V503 — Maximum Crush - Rear | 000 cm | No crush (or less than 1 cm.) | more |
| V504 — Maximum Crush - Left Side | 000 cm | No crush (or less than 1 cm.) | more |
| V505 — Maximum Crush - Roof | 000 cm | No crush (or less than 1 cm.) | more |
| V506 — Maximum Crush - Other | 000 cm | No crush (or less than 1 cm.) | more |
| V507 — Are Events In Chronological Order | 1 | Yes | more |
| V508 — Event 1 Impact Location | 1 | On Roadway | more |
| V509 — Event 1 Impact Configuration | 14 | FRONT of case veh - REAR of contacted Vehicle | more |
| V510 — Event 1 Object/Vehicle Contacted | 34 | Straight truck | more |
| V511 — Event 2 Impact Location | 8 | No 2nd event | more |
| V512 — Event 2 Impact Configuration | 88 | No 2nd event | more |
| V513 — Event 2 Object/Vehicle Contacted | 00 | No object/vehicle contacted | more |
| V514 — Event 3 Impact Location | 8 | No 3rd event | more |
| V515 — Event 3 Impact Configuration | 88 | No 3rd event | more |
| V516 — Event 3 Object/Vehicle Contacted | 00 | No object/vehicle contacted | more |

| | | | |
|--|-----|--------------------------------|----------------------|
| V517 — Event 4 Impact Location | 8 | No 4th event | more |
| V518 — Event 4 Impact Configuration | 88 | No 4th event | more |
| V519 — Event 4 Object/Vehicle Contacted | 00 | No object/vehicle contacted | more |
| V520 — Event 5 Impact Location | 8 | No 5th event | more |
| V521 — Event 5 Impact Configuration | 88 | No 5th event | more |
| V522 — Event 5 Object/Vehicle Contacted | 00 | No object/vehicle contacted | more |
| V523 — Event 6 Impact Location | 8 | No 6th event | more |
| V524 — Event 6 Impact Configuration | 88 | No 6th event | more |
| V525 — Event 6 Object/Vehicle Contacted | 00 | No object/vehicle contacted | more |
| V526 — Event 7 Impact On Road | 8 | No 7th event | more |
| V527 — Event 7 Impact Configuration | 88 | No 7th event | more |
| V528 — Event 7 Object/Vehicle Contacted | 00 | No object/vehicle contacted | more |
| V529 — Primary CDC Case Vehicle -event Number | 1 | Event 1 | more |
| V530 — Primary CDC Case Vehicle - impact speed | 999 | Unknown | more |
| V531 — Primary CDC Case Vehicle - Estimated By | 1 | Investigator | more |
| V532 — Primary CDC Case Vehicle -crush | 053 | — | — |
| V533 — Primary CDC Case Vehicle -clock #1 | 12 | 12 o'clock | more |
| V534 — Primary CDC Case Vehicle letter 1 #1 | 06 | F - Front | more |
| V535 — Primary CDC Case Vehicle letter 2 #1 | 04 | D - Distributed (Side or End) | more |
| V536 — Primary CDC Case Vehicle letter 3 #1 | 05 | E - Everything below belt line | more |

| | | | |
|---|---------|-----------------------------|----------------------|
| V537 — Primary CDC Case Vehicle letter 4 #1 | 23 | W - Wide impact area | more |
| V538 — Primary CDC Case Vehicle Extent #1 | 03 | Extent 3 | more |
| V539 — Primary CDC Case Vehicle -CDC #1 | 12FDEW3 | — | — |
| V541 — Primary CDC Case Vehicle letter 1 #2 | 00 | Missing Data/Not applicable | more |
| V542 — Primary CDC Case Vehicle letter 2 #2 | 00 | Missing Data/Not applicable | more |
| V543 — Primary CDC Case Vehicle letter 3 #2 | 00 | Missing Data/Not applicable | more |
| V544 — Primary CDC Case Vehicle letter 4 #2 | 00 | Missing Data/Not applicable | more |
| V545 — Primary CDC Case Vehicle Extent #2 | 00 | Missing Data/Not applicable | more |
| V546 — Primary CDC Case Vehicle -CDC #2 | 9800000 | — | — |
| V547 — Primary CDC Contacted Vehicle - Impact Speed | 999 | Unknown | more |
| V548 — Primary CDC Contacted Vehicle - Estimated By | 1 | Investigator | more |
| V549 — Primary CDC Contacted Vehicle -crush | 999 | Unknown | more |
| V550 — Primary CDC Contacted Vehicle -clock #1 | 99 | Unknown or no damage | more |
| V551 — Primary CDC Contacted Vehicle letter 1 #1 | 00 | Missing Data/Not applicable | more |
| V552 — Primary CDC Contacted Vehicle letter 2 #1 | 00 | Missing Data/Not applicable | more |
| V553 — Primary CDC Contacted Vehicle letter 3 #1 | 00 | Missing Data/Not applicable | more |
| V554 — Primary CDC Contacted Vehicle letter 4 #1 | 00 | Missing Data/Not applicable | more |
| V555 — Primary CDC Contacted Vehicle Extent #1 | 00 | Missing Data/Not applicable | more |
| V556 — Primary CDC Contacted Vehicle -CDC #1 | 9900000 | — | — |

| | | | |
|--|---------|---------------------------------------|----------------------|
| V558 — Primary CDC Contacted Vehicle letter 1 #2 | 00 | Missing Data/Not applicable | more |
| V559 — Primary CDC Contacted Vehicle letter 2 #2 | 00 | Missing Data/Not applicable | more |
| V560 — Primary CDC Contacted Vehicle letter 3 #2 | 00 | Missing Data/Not applicable | more |
| V561 — Primary CDC Contacted Vehicle letter 4 #2 | 00 | Missing Data/Not applicable | more |
| V562 — Primary CDC Contacted Vehicle Extent #2 | 00 | Missing Data/Not applicable | more |
| V563 — Primary CDC Contacted Vehicle -CDC #2 | 9900000 | — | — |
| V564 — Secondary CDC Case Vehicle - Event No | 8 | Not applicable | more |
| V565 — Secondary CDC Case Vehicle - Impact Speed | 998 | Not Applicable | more |
| V566 — Secondary CDC Case Vehicle - Estimated By | 8 | Not applicable (no vehicle/no impact) | more |
| V567 — Secondary CDC Case Vehicle -crush | 998 | Not Applicable | more |
| V568 — Secondary CDC Case Vehicle -clock #1 | 98 | Not Applicable | more |
| V569 — Secondary CDC Case Vehicle letter 1 #1 | 00 | Missing Data/Not applicable | more |
| V570 — Secondary CDC Case Vehicle letter 2 #1 | 00 | Missing Data/Not applicable | more |
| V571 — Secondary CDC Case Vehicle letter 3 #1 | 00 | Missing Data/Not applicable | more |
| V572 — Secondary CDC Case Vehicle letter 4 #1 | 00 | Missing Data/Not applicable | more |
| V573 — Secondary CDC Case Vehicle Extent #1 | 00 | Missing Data/Not applicable | more |
| V574 — Secondary CDC Case Vehicle -CDC #1 | 9800000 | — | — |
| V576 — Secondary CDC Case Vehicle letter 1 #2 | 00 | Missing Data/Not applicable | more |
| V577 — Secondary CDC Case Vehicle letter 2 #2 | 00 | Missing Data/Not applicable | more |
| V578 — Secondary CDC Case Vehicle letter 3 #2 | 00 | Missing Data/Not applicable | more |

| | | | |
|---|---------|---------------------------------------|----------------------|
| V579 — Secondary CDC Case Vehicle letter 4 #2 | 00 | Missing Data/Not applicable | more |
| V580 — Secondary CDC Case Vehicle Extent #2 | 00 | Missing Data/Not applicable | more |
| V581 — Secondary CDC Case Vehicle -CDC #2 | 9800000 | — | — |
| V582 — Secondary CDC Contacted Vehicle - Impact Speed | 998 | Not Applicable | more |
| V583 — Secondary CDC Contacted Vehicle - Estimated By | 8 | Not applicable (no vehicle/no impact) | more |
| V584 — Secondary CDC Contacted Vehicle -crush | 998 | Not Applicable | more |
| V585 — Secondary CDC Contacted Vehicle -clock #1 | 98 | Not Applicable | more |
| V586 — Secondary CDC Contacted Vehicle letter 1 #1 | 00 | Missing Data/Not applicable | more |
| V587 — Secondary CDC Contacted Vehicle letter 2 #1 | 00 | Missing Data/Not applicable | more |
| V588 — Secondary CDC Contacted Vehicle letter 3 #1 | 00 | Missing Data/Not applicable | more |
| V589 — Secondary CDC Contacted Vehicle letter 4 #1 | 00 | Missing Data/Not applicable | more |
| V590 — Secondary CDC Contacted Vehicle Extent #1 | 00 | Missing Data/Not applicable | more |
| V591 — Secondary CDC Contacted Vehicle -CDC #1 | 9800000 | — | — |
| V593 — Secondary CDC Contacted Vehicle letter 1 #2 | 00 | Missing Data/Not applicable | more |
| V594 — Secondary CDC Contacted Vehicle letter 2 #2 | 00 | Missing Data/Not applicable | more |
| V595 — Secondary CDC Contacted Vehicle letter 3 #2 | 00 | Missing Data/Not applicable | more |
| V596 — Secondary CDC Contacted Vehicle letter 4 #2 | 00 | Missing Data/Not applicable | more |
| V597 — Secondary CDC Contacted Vehicle Extent #2 | 00 | Missing Data/Not applicable | more |
| V598 — Secondary CDC Contacted Vehicle -CDC #2 | 9800000 | — | — |

Crash Severity

| Variable Number and Name | Code Value | Code Description | Other Options |
|---|------------|--|----------------------|
| V601 — Case Vehicle Primary Impact Number | 1 | — | — |
| V602 — Primary Impact Total Delta-V | 033 kph | — | — |
| V603 — Primary Case Vehicle Reconstructed Longitudinal Delta-V | -033 kph | — | — |
| V604 — Primary Case Vehicle Reconstructed Lateral Delta-V | 0000 kph | — | — |
| V605 — Primary Case Vehicle Reconstructed Crush Energy | 0580 kJ | — | — |
| V606 — Primary Impact Case Vehicle -reconstruction | 22 | Reconstructed, moderate confidence level | more |
| V607 — Primary Case Vehicle Reconstruction Mode | 2 | CDC & detailed damage | more |
| V608 — Primary Contacted Vehicle Reconstructed Total Delta-V | 999 | Unknown | more |
| V609 — Primary Contacted Vehicle Reconstructed Longitudinal Delta-V | 9999 | — | — |
| V610 — Primary Contacted Vehicle Reconstructed Lateral Delta-V | 9999 | — | — |
| V611 — Primary Contacted Vehicle Reconstructed Crush Energy | 9999 | — | — |
| V612 — Case Vehicle Secondary Impact Number | 8 | — | — |
| V613 — Secondary Case Vehicle Reconstructed Total Delta-V | 888 | N/A | more |
| V614 — Secondary Case Vehicle Reconstructed Longitudinal Delta-V | 8888 | — | — |

| | | | |
|---|----------|--|----------------------|
| V615 — Secondary Case Vehicle Reconstructed Lateral Delta-V | 8888 | — | — |
| V616 — Secondary Case Vehicle Reconstructed Crush Energy | 8888 | — | — |
| V617 — Secondary Case Vehicle Reconstruction Note | 88 | — | — |
| V618 — Secondary Case Vehicle Reconstruction Mode | 8 | Not applicable | more |
| V619 — Secondary Contacted Vehicle Reconstructed Total Delta-V | 888 | N/A | more |
| V620 — Secondary Contacted Vehicle Reconstructed Longitudinal Delta-V | 8888 | — | — |
| V621 — Secondary Contacted Vehicle Reconstructed Lateral Delta-V | 8888 | — | — |
| V622 — Secondary Contacted Vehicle Reconstructed Crush Energy | 8888 | — | — |
| V623 — Case Vehicle Primary Impact Number | 1 | — | — |
| V624 — Primary Case Vehicle Reconstructed Total EBS | 033 kph | — | — |
| V625 — Primary Case Vehicle Reconstructed Longitudinal EBS | -033 kph | — | — |
| V626 — Primary Case Vehicle Reconstructed Lateral EBS | 0000 kph | — | — |
| V627 — Primary Case Vehicle Reconstructed Crush Energy | 0580 kJ | — | — |
| V628 — Primary Case Vehicle Reconstruction Note | 22 | Reconstructed, moderate confidence level | more |
| V629 — Primary Case Vehicle Reconstruction Mode | 2 | CDC & detailed damage | more |
| V630 — Primary Contacted Vehicle Reconstruction Total EBS | 999 | Unknown | more |
| V631 — Primary Contacted Vehicle Reconstruction Longitudinal EBS | 9999 | — | — |
| V632 — Primary Contacted | 9999 | — | — |

| | | | |
|--|--------|----------------|----------------------|
| Vehicle Reconstruction Lateral EBS | | | |
| V633 — Primary Contacted Vehicle Reconstruction Crush Energy | 9999 | — | — |
| V634 — Case Vehicle Secondary Impact Number | 8 | Not applicable | more |
| V635 — Secondary Case Vehicle Reconstruction Total EBS | 888 | N/A | more |
| V636 — Secondary Case Vehicle Reconstruction Longitudinal EBS | 8888 | — | — |
| V637 — Secondary Case Vehicle Reconstruction Lateral EBS | 8888 | — | — |
| V638 — Secondary Case Vehicle Reconstruction Crush Energy | 8888 | — | — |
| V639 — Secondary Case Vehicle Reconstruction Note | 88 | — | — |
| V640 — Secondary Case Vehicle Reconstruction Mode | 8 | Not applicable | more |
| V641 — Secondary Contacted Vehicle Reconstruction Total EBS | 888 | N/A | more |
| V642 — Secondary Contacted Vehicle Reconstruction Longitudinal EBS | 8888 | — | — |
| V643 — Secondary Contacted Vehicle Reconstruction Lateral EBS | 8888 | — | — |
| V644 — Secondary Contacted Vehicle Reconstruction Crush Energy | 8888 | — | — |
| V645 — Case Vehicle Reconstructed Impact Number | 1 | — | — |
| V646 — Case Vehicle Impact 1 Plane | 5 | Other | more |
| V647 — Case Vehicle Impact 1 Direct Damage Length [DDL] | 146 cm | — | — |
| V648 — Case Vehicle Impact 1 Max Crush | 040 cm | — | — |
| V649 — Case Vehicle Impact 1 Field-L | 130 cm | — | — |

| | | | |
|---|---------|---------|----------------------|
| V650 — Case Vehicle Impact 1 C1 | 012 cm | — | — |
| V651 — Case Vehicle Impact 1 C2 | 018 cm | — | — |
| V652 — Case Vehicle Impact 1 C3 | 034 cm | — | — |
| V653 — Case Vehicle Impact 1 C4 | 035 cm | — | — |
| V654 — Case Vehicle Impact 1 C5 | 030 cm | — | — |
| V655 — Case Vehicle Impact 1 C6 | 030 cm | — | — |
| V656 — Case Vehicle Impact 1 +/- D | 0000 cm | — | — |
| V657 — Case Vehicle Reconstructed Impact Number | 1 | — | — |
| V658 — Case Vehicle Impact 2 Plane | 9 | Unknown | more |
| V659 — Case Vehicle Impact 2 Direct Damage Length [DDL] | 999 | Unknown | more |
| V660 — Case Vehicle Impact 2 Max Crush | 999 | Unknown | more |
| V661 — Case Vehicle Impact 2 Field-L | 999 | Unknown | more |
| V662 — Case Vehicle Impact 2 C1 | 999 | Unknown | more |
| V663 — Case Vehicle Impact 2 C2 | 999 | Unknown | more |
| V664 — Case Vehicle Impact 2 C3 | 999 | Unknown | more |
| V665 — Case Vehicle Impact 2 C4 | 999 | Unknown | more |
| V666 — Case Vehicle Impact 2 C5 | 999 | Unknown | more |
| V667 — Case Vehicle Impact 2 C6 | 999 | Unknown | more |
| V668 — Case Vehicle Impact 2 +/- D | 0999 cm | — | — |
| V669 — Other Vehicle Reconstructed Impact Number | 2 | — | — |

| | | | |
|--|------|----------------|----------------------|
| V670 — Other Vehicle Impact 1 Plane | 8 | Not applicable | more |
| V671 — Other Vehicle Impact 1 Direct Damage Length [DDL] | 998 | Not applicable | more |
| V672 — Other Vehicle Impact 1 Max Crush | 998 | Not applicable | more |
| V673 — Other Vehicle Impact 1 Field-L | 998 | Not applicable | more |
| V674 — Other Vehicle Impact 1 C1 | 998 | Not applicable | more |
| V675 — Other Vehicle Impact 1 C2 | 998 | Not applicable | more |
| V676 — Other Vehicle Impact 1 C3 | 998 | Not applicable | more |
| V677 — Other Vehicle Impact 1 C4 | 998 | Not applicable | more |
| V678 — Other Vehicle Impact 1 C5 | 998 | Not applicable | more |
| V679 — Other Vehicle Impact 1 C6 | 998 | Not applicable | more |
| V680 — Other Vehicle Impact 1 +/- D | 9998 | — | — |
| V681 — Other Vehicle Reconstructed Impact Number | 2 | — | — |
| V682 — Other Vehicle Impact 2 Plane | 8 | Not applicable | more |
| V683 — Other Vehicle Impact 2 Direct Damage Length [DDL] | 998 | Not applicable | more |
| V684 — Other Vehicle Impact 2 Max Crush | 998 | Not applicable | more |
| V685 — Other Vehicle Impact 2 Field-L | 998 | Not applicable | more |
| V686 — Other Vehicle Impact 2 C1 | 998 | Not applicable | more |
| V687 — Other Vehicle Impact 2 C2 | 998 | Not applicable | more |
| V688 — Other Vehicle Impact 2 C3 | 998 | Not applicable | more |
| V689 — Other Vehicle Impact 2 C4 | 998 | Not applicable | more |

| | | | |
|--|------|----------------|----------------------|
| V690 — Other Vehicle Impact 2 C5 | 998 | Not applicable | more |
| V691 — Other Vehicle Impact 2 C6 | 998 | Not applicable | more |
| V692 — Other Vehicle Impact 2 +/- D | 9998 | — | — |

Case Vehicle

Tires & Rims

| Variable Number and Name | Code Value | Code Description | Other Options |
|---|------------|------------------|----------------------|
| V701 — Left Front Wheel Damaged | 0 | No | more |
| V702 — Right Front Wheel Damaged | 0 | No | more |
| V703 — Right Rear Wheel Damaged | 1 | Yes | more |
| V704 — Left Rear Wheel Damaged | 0 | No | more |
| V705 — Left Front Tire Tread Type | 4 | All Weather | more |
| V706 — Right Front Tire Tread Type | 4 | All Weather | more |
| V707 — Right Rear Tire Tread Type | 4 | All Weather | more |
| V708 — Left Rear Tire Tread Type | 4 | All Weather | more |
| V709 — Left Front Carcass Construction | 3 | Radial | more |
| V710 — Right Front Carcass Construction | 3 | Radial | more |
| V711 — Right Rear Carcass Construction | 3 | Radial | more |
| V712 — Left Rear Carcass Construction | 3 | Radial | more |
| V717 — Left Front Tire Size | P18570R14 | — | — |
| V718 — Right Front Tire Size | P18570R14 | — | — |
| V719 — Right Rear Tire Size | P18570R14 | — | — |
| V720 — Left Rear Tire Size | P18570R14 | — | — |

Case Vehicle

Fuel, Tank, Fire

| Variable Number and Name | Code Value | Code Description | Other Options |
|------------------------------------|------------|---|----------------------|
| V801 — Propulsive Fuel Type | 1 | Gasoline | more |
| V802 — Main Tank Location | 322 | Within frame/centered laterally - within vertically | more |
| V803 — Main Filler Cap Location | 133 | — | — |
| V804 — Main Tank Material | 9 | Unknown | more |
| V805 — Aux Tank Type | 8 | Not applicable (not equipped) | more |
| V806 — Aux Tank Location | 888 | Not applicable (not equipped) | more |
| V807 — Aux Filler Cap Location | 888 | Not applicable (not equipped) | more |
| V808 — Aux Tank Material | 8 | Not applicable | more |
| V901 — Fuel Leakage From Crash | 0 | No | more |
| V1001 — Fire In Or On Case Vehicle | 0 | No | more |

Case Vehicle

Exterior

| Variable Number and Name | Code Value | Code Description | Other Options |
|---|------------|---------------------|----------------------|
| V1101 — Hood Latch Released | 1 | Yes | more |
| V1102 — Hood Latch Damaged | 1 | Yes | more |
| V1103 — Hood Latch Jammed | 0 | No | more |
| V1104 — Left Hood Hinge Damaged | 1 | Yes | more |
| V1105 — Left Hood Hinge Separated | 0 | No | more |
| V1106 — Right Hood Hinge Damaged | 1 | Yes | more |
| V1107 — Right Hood Hinge Separated | 0 | No | more |
| V1108 — Hood Remained On Vehicle | 1 | Yes | more |
| V1109 — Rear Hood Edge Elevated | 1 | Yes | more |
| V1110 — Edge Contacted Windshield | 0 | No | more |
| V1111 — Edge Penetrated Windshield | 8 | Not applicable | more |
| V1112 — Hood Latch Location | 1 | Front of Vehicle | more |
| V1113 — Eng/Transmissn Mount Separation | 0 | No | more |
| V1114 — Steerng Column Flex Coupling | 9 | Unknown if equipped | more |
| V1115 — Steerng Column Coupling Damaged | 9 | Unknown | more |
| V1116 — Steerng Column Coupling Separated | 9 | Unknown | more |
| V1117 — Eng Comp Telescopng Unit | 88 | Not collected | more |
| V1118 — Comp Orig/Telescopd Diff | 888 | Not collected | more |

| | | | |
|--|---|-------------------------------|----------------------|
| V1119 — Left Side Body Mount Separation | 8 | Not applicable (unitized) | more |
| V1120 — Upper Left A-pillar Separation | 0 | No | more |
| V1121 — Lower Left A-pillar Separation | 0 | No | more |
| V1122 — Upper Left B-pillar Separation | 0 | No | more |
| V1123 — Lower Left B-pillar Separation | 0 | No | more |
| V1124 — Upper Left C-pillar Separation | 0 | No | more |
| V1125 — Lower Left C-pillar Separation | 0 | No | more |
| V1126 — Upper Left D-pillar Separation | 8 | Not applicable (not equipped) | more |
| V1127 — Lower Left D-pillar Separation | 8 | Not applicable (not equipped) | more |
| V1128 — Left Front Door Opening Cause | 0 | Door did not open | more |
| V1129 — Left Rear Door Opening Cause | 0 | Door did not open | more |
| V1130 — Left Front Door Jammed Closed | 0 | No | more |
| V1131 — Left Rear Door Jammed Closed | 0 | No | more |
| V1132 — Rear Door Type | 0 | No door (includes pickups) | more |
| V1133 — Rear Door Opening Cause | 8 | Not applicable (no rear door) | more |
| V1134 — Rear Door Jammed Closed | 8 | Not applicable (no rear door) | more |
| V1135 — Luggage Partition Damagd | 0 | No | more |
| V1136 — Spare Tire Status | 8 | Not collected | more |
| V1137 — Trailer Hitch Type | 0 | No hitch | more |
| V1138 — Trailer Type | 0 | No trailer | more |
| V1139 — Right Side Body Mount Separation | 8 | Not applicable (unitized) | more |

| | | | |
|--|----|-------------------------------|----------------------|
| V1140 — Upper Right A-pillar Separation | 0 | No | more |
| V1141 — Lower Right A-pillar Separation | 4 | No separation, but damaged | more |
| V1142 — Upper Right B-pillar Separation | 0 | No | more |
| V1143 — Lower Right B-pillar Separation | 0 | No | more |
| V1144 — Upper Right C-pillar Separation | 0 | No | more |
| V1145 — Lower Right C-pillar Separation | 0 | No | more |
| V1146 — Upper Right D-pillar Separation | 8 | Not applicable (not equipped) | more |
| V1147 — Lower Right D-pillar Separation | 8 | Not applicable (not equipped) | more |
| V1148 — Right Front Door Opening Cause | 00 | Door did not open | more |
| V1149 — Right Rear Door Opening Cause | 00 | Door did not open | more |
| V1150 — Right Front Door Jammed Closed | 1 | Yes | more |
| V1151 — Right Rear Door Jammed Closed | 0 | No | more |
| V1152 — Van Rear Door Type | 8 | Not applicable (not a van) | more |
| V1153 — Windshield Cracked | | Yes | more |
| V1154 — Windshield Broken | 0 | No | more |
| V1155 — Windshield Cracked or Broken by Occupant | 1 | Yes | more |
| V1156 — Bond Separation Extent | 0 | None | more |
| V1157 — Windshield Code | | — | — |
| V1158 — Did Sun/T Roof Open | 8 | Not Applicable | more |

Case Vehicle

Steering

Column/Rim

| Variable Number and Name | Code Value | Code Description | Other Options |
|---|------------|----------------------------------|----------------------|
| V1201 — Steering Wheel Rim Damage | 0 | None | more |
| V1202 — Number of Steering Wheel Spokes | 4 | 4 spokes | more |
| V1203 — Steering Wheel Spoke Damage | 0 | None | more |
| V1204 — Column Tilt Feature | 1 | Yes, equipped (position unknown) | more |
| V1205 — Column Swing-away Feature | 0 | Not equipped | more |
| V1206 — Column Telescoping Feature | 0 | Not equipped | more |
| V1207 — Wheel Energy Absorb Device | 8 | Not collected | more |
| V1208 — Wheel Ea Orig/Damaged Diff | 888 | Not collected | more |
| V1209 — Column Energy Absorb Device | 88 | Not collected | more |
| V1210 — Column Ea Orig/Comprss Diff | 888 | Not collected | more |
| V1211 — Shear Capsule Separation | 888 | Not collected | more |
| V1212 — Column Vertical Rotation | 1 | Upward apparent rotation | more |
| V1213 — Column Lateral Rotation | 0 | No apparent rotation | more |
| V1214 — Steering Wheel Hub Damage | 0 | None | more |

Case Vehicle

Intrusion

| Variable Number and Name | Code Value | Code Description | Other Options |
|--|------------|----------------------------|----------------------|
| V1301 — Occupant Compartment Intrusion | 1 | Yes | more |
| V1302 — Was Intrusion Catastrophic | 0 | No | more |
| V1303 — Intrusion Number 01 | 01 | Intrusion #1 | more |
| V1304 — Intrusion 01 Occupant Space Number | 11 | First row, Left seat | more |
| V1305 — Intrusion 01 Intruding Object | 03 | Toe pan | more |
| V1306 — Intrusion 01 Assoc Event Number | 1 | Event #1 | more |
| V1307 — Intrusion 01 Max Intrusion X-axis | 08 cm | — | — |
| V1308 — Intrusion 01 Max Intrusion Y-axis | 00 cm | 0 cm or No Intrusion | more |
| V1309 — Intrusion 01 Max Intrusion Z-axis | 00 cm | 0 cm or No Intrusion | more |
| V1310 — Intrusion 01 Occupant Number | 00 | No contact or no intrusion | more |
| V1311 — Intrusion 01 Injury Number | 00 | No injury or no intrusion | more |
| V1312 — Intrusion 01 Occupant Number | 00 | No contact or no intrusion | more |
| V1313 — Intrusion 01 Injury Number | 00 | No injury or no intrusion | more |
| V1314 — Intrusion Number 02 | 00 | No Intrusion, None | more |
| V1315 — Intrusion 02 Occupant Space Number | 00 | No Intrusion, None | more |
| V1316 — Intrusion 02 Intruding Object | 00 | No Intrusion, None | more |
| V1317 — Intrusion 02 Assoc Event Number | 0 | No Intrusion, None | more |

| | | | |
|--|-------|---|----------------------|
| V1318 — Intrusion 02 Max Intrusion X-axis | 00 cm | 0 cm or No Intrusion | more |
| V1319 — Intrusion 02 Max Intrusion Y-axis | 00 cm | 0 cm or No Intrusion | more |
| V1320 — Intrusion 02 Max Intrusion Z-axis | 00 cm | 0 cm or No Intrusion | more |
| V1321 — Intrusion 02 Occupant Number | 00 | No contact or no intrusion | more |
| V1322 — Intrusion 02 Injury Number | 00 | No injury or no intrusion | more |
| V1323 — Intrusion 02 Occupant Number | 00 | No contact or no intrusion | more |
| V1324 — Intrusion 02 Injury Number | 99 | Contact, injury unknown or data not collected | more |
| V1325 — Intrusion Number 03 | 00 | No Intrusion, None | more |
| V1326 — Intrusion 03 Occupant Space Number | 00 | No Intrusion, None | more |
| V1327 — Intrusion 03 Intruding Object | 00 | No Intrusion, None | more |
| V1328 — Intrusion 03 Assoc Event Number | 0 | No Intrusion, None | more |
| V1329 — Intrusion 03 Max Intrusion X-axis | 00 cm | 0 cm or No Intrusion | more |
| V1330 — Intrusion 03 Max Intrusion Y-axis | 00 cm | 0 cm or No Intrusion | more |
| V1331 — Intrusion 03 Max Intrusion Z-axis | 00 cm | 0 cm or No Intrusion | more |
| V1332 — Intrusion 03 Occupant Number | 00 | No contact or no intrusion | more |
| V1333 — Intrusion 03 Injury Number | 00 | No injury or no intrusion | more |
| V1334 — Intrusion 03 Occupant Number | 00 | No contact or no intrusion | more |
| V1335 — Intrusion 03 Injury Number | 99 | Contact, injury unknown or data not collected | more |
| V1336 — Intrusion Number 04 | 00 | No Intrusion, None | more |
| V1337 — Intrusion 04 Occupant Space Number | 00 | No Intrusion, None | more |
| V1338 — Intrusion 04 | 00 | No Intrusion, None | more |

| | | | |
|--|-------|---|----------------------|
| Intruding Object | | | |
| V1339 — Intrusion 04 Assoc Event Number | 0 | No Intrusion, None | more |
| V1340 — Intrusion 04 Max Intrusion X-axis | 00 cm | 0 cm or No Intrusion | more |
| V1341 — Intrusion 04 Max Intrusion Y-axis | 00 cm | 0 cm or No Intrusion | more |
| V1342 — Intrusion 04 Max Intrusion Z-axis | 00 cm | 0 cm or No Intrusion | more |
| V1343 — Intrusion 04 Occupant Number | 00 | No contact or no intrusion | more |
| V1344 — Intrusion 04 Injury Number | 00 | No injury or no intrusion | more |
| V1345 — Intrusion 04 Occupant Number | 00 | No contact or no intrusion | more |
| V1346 — Intrusion 04 Injury Number | 99 | Contact, injury unknown or data not collected | more |
| V1347 — Intrusion Number 05 | 00 | No Intrusion, None | more |
| V1348 — Intrusion 05 Occupant Space Number | 00 | No Intrusion, None | more |
| V1349 — Intrusion 05 Intruding Object | 00 | No Intrusion, None | more |
| V1350 — Intrusion 05 Assoc Event Number | 0 | No Intrusion, None | more |
| V1351 — Intrusion 05 Max Intrusion X-axis | 00 cm | 0 cm or No Intrusion | more |
| V1352 — Intrusion 05 Max Intrusion Y-axis | 00 cm | 0 cm or No Intrusion | more |
| V1353 — Intrusion 05 Max Intrusion Z-axis | 00 cm | 0 cm or No Intrusion | more |
| V1354 — Intrusion 05 Occupant Number | 00 | No contact or no intrusion | more |
| V1355 — Intrusion 05 Injury Number | 00 | No injury or no intrusion | more |
| V1356 — Intrusion 05 Occupant Number | 00 | No contact or no intrusion | more |
| V1357 — Intrusion 05 Injury Number | 99 | Contact, injury unknown or data not collected | more |
| V1358 — Intrusion Number 06 | 00 | No Intrusion, None | more |

| | | | |
|--|-------|---|----------------------|
| V1359 — Intrusion 06 Occupant Space Number | 00 | No Intrusion, None | more |
| V1360 — Intrusion 06 Intruding Object | 00 | No Intrusion, None | more |
| V1361 — Intrusion 06 Assoc Event Number | 0 | No Intrusion, None | more |
| V1362 — Intrusion 06 Max Intrusion X-axis | 00 cm | 0 cm or No Intrusion | more |
| V1363 — Intrusion 06 Max Intrusion Y-axis | 00 cm | 0 cm or No Intrusion | more |
| V1364 — Intrusion 06 Max Intrusion Z-axis | 00 cm | 0 cm or No Intrusion | more |
| V1365 — Intrusion 06 Occupant Number | 00 | No contact or no intrusion | more |
| V1366 — Intrusion 06 Injury Number | 00 | No injury or no intrusion | more |
| V1367 — Intrusion 06 Occupant Number | 00 | No contact or no intrusion | more |
| V1368 — Intrusion 06 Injury Number | 99 | Contact, injury unknown or data not collected | more |
| V1369 — Intrusion Number 07 | 00 | No Intrusion, None | more |
| V1370 — Intrusion 07 Occupant Space Number | 00 | No Intrusion, None | more |
| V1371 — Intrusion 07 Intruding Object | 00 | No Intrusion, None | more |
| V1372 — Intrusion 07 Assoc Event Number | 0 | No Intrusion, None | more |
| V1373 — Intrusion 07 Max Intrusion X-axis | 00 cm | 0 cm or No Intrusion | more |
| V1374 — Intrusion 07 Max Intrusion Y-axis | 00 cm | 0 cm or No Intrusion | more |
| V1375 — Intrusion 07 Max Intrusion Z-axis | 00 cm | 0 cm or No Intrusion | more |
| V1376 — Intrusion 07 Occupant Number | 00 | No contact or no intrusion | more |
| V1377 — Intrusion 07 Injury Number | 00 | No injury or no intrusion | more |
| V1378 — Intrusion 07 Occupant Number | 00 | No contact or no intrusion | more |

| | | | |
|--|-------|---|----------------------|
| V1379 — Intrusion 07 Injury Number | 99 | Contact, injury unknown or data not collected | more |
| V1380 — Intrusion Number 08 | 00 | No Intrusion, None | more |
| V1381 — Intrusion 08 Occupant Space Number | 00 | No Intrusion, None | more |
| V1382 — Intrusion 08 Intruding Object | 00 | No Intrusion, None | more |
| V1383 — Intrusion 08 Assoc Event Number | 0 | No Intrusion, None | more |
| V1384 — Intrusion 08 Max Intrusion X-axis | 00 cm | 0 cm or No Intrusion | more |
| V1385 — Intrusion 08 Max Intrusion Y-axis | 00 cm | 0 cm or No Intrusion | more |
| V1386 — Intrusion 08 Max Intrusion Z-axis | 00 cm | 0 cm or No Intrusion | more |
| V1387 — Intrusion 08 Occupant Number | 00 | No contact or no intrusion | more |
| V1388 — Intrusion 08 Injury Number | 00 | No injury or no intrusion | more |
| V1389 — Intrusion 08 Occupant Number | 00 | No contact or no intrusion | more |
| V1390 — Intrusion 08 Injury Number | 99 | Contact, injury unknown or data not collected | more |
| V1391 — Intrusion Number 09 | 00 | No Intrusion, None | more |
| V1392 — Intrusion 09 Occupant Space Number | 00 | No Intrusion, None | more |
| V1393 — Intrusion 09 Intruding Object | 00 | No Intrusion, None | more |
| V1394 — Intrusion 09 Assoc Event Number | 0 | No Intrusion, None | more |
| V1395 — Intrusion 09 Max Intrusion X-axis | 00 cm | 0 cm or No Intrusion | more |
| V1396 — Intrusion 09 Max Intrusion Y-axis | 00 cm | 0 cm or No Intrusion | more |
| V1397 — Intrusion 09 Max Intrusion Z-axis | 00 cm | 0 cm or No Intrusion | more |
| V1398 — Intrusion 09 Occupant Number | 00 | No contact or no intrusion | more |
| V1399 — Intrusion 09 Injury | 00 | No injury or no intrusion | more |

| | | | |
|--|-------|---|----------------------|
| Number | | | |
| V1400 — Intrusion 09 Occupant Number | 00 | No contact or no intrusion | more |
| V1401 — Intrusion 09 Injury Number | 99 | Contact, injury unknown or data not collected | more |
| V1402 — Intrusion Number 10 | 00 | No Intrusion, None | more |
| V1403 — Intrusion 10 Occupant Space Number | 00 | No Intrusion, None | more |
| V1404 — Intrusion 10 Intruding Object | 00 | No Intrusion, None | more |
| V1405 — Intrusion 10 Assoc Event Number | 0 | No Intrusion, None | more |
| V1406 — Intrusion 10 Max Intrusion X-axis | 00 cm | 0 cm or No Intrusion | more |
| V1407 — Intrusion 10 Max Intrusion Y-axis | 00 cm | 0 cm or No Intrusion | more |
| V1408 — Intrusion 10 Max Intrusion Z-axis | 00 cm | 0 cm or No Intrusion | more |
| V1409 — Intrusion 10 Occupant Number | 00 | No contact or no intrusion | more |
| V1410 — Intrusion 10 Injury Number | 00 | No injury or no intrusion | more |
| V1411 — Intrusion 10 Occupant Number | 00 | No contact or no intrusion | more |
| V1412 — Intrusion 10 Injury Number | 99 | Contact, injury unknown or data not collected | more |
| V1413 — Door Intrusion Number 01 | 88 | Not Applicable | more |
| V1414 — Door Intrusion Number 01 Cause | 8 | Not applicable | more |
| V1415 — Door Intrusion Number 02 | 88 | Not Applicable | more |
| V1416 — Door Intrusion Number 02 Cause | 8 | Not applicable | more |
| V1417 — Door Intrusion Number 03 | 88 | Not Applicable | more |
| V1418 — Door Intrusion Number 03 Cause | 8 | Not applicable | more |
| V1419 — Door Intrusion 01 | 88 | Not Applicable | more |

| | | | |
|--|----|----------------|----------------------|
| Component | | | |
| V1420 — Door Intrusion 01 Component Damaged 1 | 8 | Not Applicable | more |
| V1421 — Door Intrusion 01 Component Damaged 2 | 8 | Not Applicable | more |
| V1422 — Door Intrusion 02 Component | 88 | Not Applicable | more |
| V1423 — Door Intrusion 02 Component Damaged 1 | 8 | Not Applicable | more |
| V1424 — Door Intrusion 02 Component Damaged 2 | 8 | Not Applicable | more |
| V1425 — Door Intrusion 03 Component | 88 | Not Applicable | more |
| V1426 — Door Intrusion 03 Component Damaged 1 | 8 | Not Applicable | more |
| V1427 — Door Intrusion 03 Component Damaged 2 | 8 | Not Applicable | more |
| V1428 — Door Intrusion 04 Component | 88 | Not Applicable | more |
| V1429 — Door Intrusion 04 Component Damaged 1 | 8 | Not Applicable | more |
| V1430 — Door Intrusion 04 Component Damaged 2 | 8 | Not Applicable | more |

Case Vehicle

Airbag(s)

| Variable Number and Name | Code Value | Code Description | Other Options |
|--|------------|------------------|----------------------|
| V1501 — Driver Airbag Equipped | 1 | Yes | more |
| V1502 — Driver Airbag Deployed | 1 | Yes | more |
| V1503 — Driver Airbag Condition | 0 | No Damage | more |
| V1504 — Passenger Airbag Equip | 1 | Yes | more |
| V1505 — Passenger Airbag Deployed | 1 | Yes | more |
| V1506 — Passenger Airbag Condition | 0 | No Damage | more |
| V1507 — Steering Wheel Airbag Tether | 1 | Yes | more |
| V1508 — Driver Airbag Marked By Contact | 0 | No | more |
| V1509 — Passenger Airbag Tether | 0 | No | more |
| V1510 — Passenger Airbag Marked By Contact | 0 | No | more |

Case Vehicle

Interior

| Variable Number and Name | Code Value | Code Description | Other Options |
|--------------------------------------|------------|------------------|----------------------|
| V1601 — Left Front Door Damaged | 0 | No | more |
| V1602 — Right Front Door Damaged | 0 | No | more |
| V1603 — Left Front Hardware Damaged | 0 | No | more |
| V1604 — Right Front Hardware Damaged | 0 | No | more |
| V1605 — Left Front Armrest Damaged | 0 | No | more |
| V1606 — Right Front Armrest Damaged | 0 | No | more |
| V1607 — Left Front Glass Damaged | 0 | No | more |
| V1608 — Right Front Glass Damaged | 0 | No | more |
| V1609 — Left Rear Door Area Damaged | 0 | No | more |
| V1610 — Right Rear Door Area Damaged | 0 | No | more |
| V1611 — Left Rear Hardware Damaged | 0 | No | more |
| V1612 — Right Rear Hardware Damaged | 0 | No | more |
| V1613 — Left Rear Armrest Damaged | 0 | No | more |
| V1614 — Right Rear Armrest Damaged | 0 | No | more |
| V1615 — Left Rear Glass Damaged | 0 | No | more |
| V1616 — Right Rear Glass Damaged | 0 | No | more |
| V1617 — Left Roof Side Rail | 0 | No | more |

| | | | |
|---------------------------------------|---|----------------|----------------------|
| Damaged | | | |
| V1618 — Right Roof Side Rail Damaged | 0 | No | more |
| V1619 — Left B-pillar Damaged | 0 | No | more |
| V1620 — Right B-pillar Damaged | 0 | No | more |
| V1621 — Left C-pillar Damaged | 0 | No | more |
| V1622 — Right C-pillar Damaged | 0 | No | more |
| V1623 — Left D-pillar Damaged | 8 | Not applicable | more |
| V1624 — Right D-pillar Damaged | 8 | Not applicable | more |
| V1625 — Left Headlining Damaged | 0 | No | more |
| V1626 — Right Headlining Damaged | 0 | No | more |
| V1627 — Left Roof Structure Damaged | 0 | No | more |
| V1628 — Right Roof Structure Damaged | 0 | No | more |
| V1629 — Left T/Sun Roof Damaged | 8 | Not applicable | more |
| V1630 — Right T/Sun Roof Damaged | 8 | Not applicable | more |
| V1631 — Other Left Side Item Damaged | 8 | Not applicable | more |
| V1632 — Other Right Side Item Damaged | 8 | Not applicable | more |
| V1633 — Foot Controls Damaged | 0 | No | more |
| V1634 — Ignition Key Damaged | 0 | No | more |
| V1635 — Rear View Mirror Damaged | 1 | Yes | more |
| V1636 — Sunvisor/Fitting Damaged | 5 | Left side only | more |
| V1637 — Windshield Molding Damaged | 0 | No | more |

| | | | |
|--|---|-----------------------|----------------------|
| V1638 — Left A-pillar Damaged | 0 | No | more |
| V1639 — Right A-pillar Damaged | 0 | No | more |
| V1640 — Center Console Damaged | 4 | Yes, occupant contact | more |
| V1641 — Transmission Lever Damaged | 4 | Yes, occupant contact | more |
| V1642 — Horn/Spoke Shroud Damaged | 0 | No | more |
| V1643 — Upper Panel Damaged | 0 | No | more |
| V1644 — Mid Panel Damaged | 0 | No | more |
| V1645 — Lower Panel Damaged | 4 | Yes, occupant contact | more |
| V1646 — Ashtray Damaged | 0 | No | more |
| V1647 — Control Knob/Lever Damaged | 0 | No | more |
| V1648 — Glove Compartment Area Damaged | 0 | No | more |
| V1649 — Instruments Damaged | 0 | No | more |
| V1650 — Park Brake Release Damaged | 0 | No | more |
| V1651 — Park Brake Pedal Damaged | 0 | No | more |
| V1652 — A/C Or Upper Vent Damaged | 0 | No | more |
| V1653 — Heater Or A/C Duct Damaged | 0 | No | more |
| V1654 — Radio Damaged | 0 | No | more |
| V1655 — Other Item Damaged | 8 | Not applicable | more |
| V1656 — Rear Window Damaged | 0 | No | more |
| V1657 — Rear Window Header Damaged | 0 | No | more |
| V1658 — Vertical Console Damaged | 0 | No | more |
| V1659 — Roof Console Damaged | 8 | Not applicable | more |

Case Vehicle

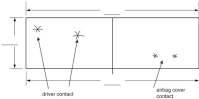
Seats

| Variable Number and Name | Code Value | Code Description | Other Options |
|--|------------|------------------|----------------------|
| V1701 — Driver Front Seat Type | 05 | Bucket | more |
| V1702 — Passenger Front Seat Type | 05 | Bucket | more |
| V1703 — Driver Seat Mount Type | 1 | Standard | more |
| V1704 — Passenger Seat Mount Type | 1 | Standard | more |
| V1705 — Driver Swivel Mechanism Equipped | 0 | No | more |
| V1706 — Passenger Swivel Mechanism Equipped | 0 | No | more |
| V1707 — Driver Seat Original Equipment | 1 | Yes | more |
| V1708 — Passenger Seat Original Equipment | 1 | Yes | more |
| V1709 — Driver Seat/Rear Occupant Contact | 8 | Not applicable | more |
| V1710 — Passenger Seat/Rear Occupant Contact | 8 | Not applicable | more |
| V1711 — Driver Seat Damage | 0 | None | more |
| V1712 — Passenger Seat Damage | 0 | None | more |
| V1713 — Center Front Armrest Damaged | 0 | No | more |
| V1714 — Driver Seat Rotation | 0 | None apparent | more |
| V1715 — Passenger Seat Rotation | 0 | None apparent | more |
| V1716 — Driver Seat-back Type | 3 | Reclining | more |
| V1717 — Passenger Seat-back | 3 | Reclining | more |

| | | | |
|--|---|------------|----------------------|
| Type | | | |
| V1718 — Driver Seat-back Lock Type | 1 | Manual | more |
| V1719 — Passenger Seat-back Lock Type | 1 | Manual | more |
| V1720 — Driver Seat-back Lock Held | 1 | Yes | more |
| V1721 — Passenger Seat-back Lock Held | 1 | Yes | more |
| V1722 — Driver Recliner Mechanism Held | 1 | Yes | more |
| V1723 — Passenger Recliner Mechanism Held | 1 | Yes | more |
| V1724 — Driver Head Restraint Type | 1 | Adjustable | more |
| V1725 — Passenger Head Restraint Type | 1 | Adjustable | more |
| V1726 — Driver Head Rest Removed | 0 | No | more |
| V1727 — Passenger Head Rest Removed | 0 | No | more |
| V1728 — Driver Head Rest Adjustment | 2 | Down | more |
| V1729 — Passenger Head Rest Adjustment | 2 | Down | more |
| V1730 — Driver Head Rest Damage | 0 | None | more |
| V1731 — Passenger Head Rest Damage | 0 | None | more |
| V1732 — Driver Seat Adjustment Type | 1 | Manual | more |
| V1733 — Passenger Seat Adjustment Type | 1 | Manual | more |
| V1734 — Driver Seat Adjustment Provided | 1 | 2-way | more |
| V1735 — Passenger Seat Adjustment Provided | 1 | 2-way | more |
| V1736 — Driver Seat Adjuster Damage | 0 | None | more |

| | | | |
|--|---|------------------------------------|----------------------|
| V1737 — Passenger Seat Adjuster Damage | 0 | None | more |
| V1738 — Driver Seat Adjuster Separation | 8 | Not applicable | more |
| V1739 — Passenger Seat Adjuster Separation | 8 | Not applicable | more |
| V1740 — Driver Seat Pre-crash Position | 3 | Rearward | more |
| V1741 — Passenger Seat Pre-crash Position | 3 | Rearward | more |
| V1742 — Left Rear Seat Type | 2 | Folding | more |
| V1743 — Right Rear Seat Type | 2 | Folding | more |
| V1744 — Left Rear Seat Damaged | 0 | None | more |
| V1745 — Right Rear Seat Damaged | 0 | None | more |
| V1746 — Center Rear Armrest Damaged | 8 | Not applicable (No Center Armrest) | more |
| V1747 — Left Rear Seat-back Left Lock Equipped | 1 | Yes | more |
| V1748 — Right Rear Seat-back Left Lock Equipped | 0 | No | more |
| V1749 — Left Rear Seat-back Left Lock Held | 1 | Yes | more |
| V1750 — Right Rear Seat-back Left Lock Held | 8 | Not applicable | more |
| V1751 — Left Rear Seat-back Right Lock Equipped | 0 | No | more |
| V1752 — Right Rear Seat-back Right Lock Equipped | 1 | Yes | more |
| V1753 — Left Rear Seat-back Right Lock Held | 8 | Not applicable | more |
| V1754 — Right Rear Seat-back Right Lock Held | 1 | Yes | more |
| V1755 — Left 3rd Seat Equipped | 0 | No | more |
| V1756 — Right 3rd Seat Equipped | 0 | No | more |

| | | | |
|--|---|---------------------------|----------------------|
| V1757 — Left 3rd Seat Backrest Damaged | 8 | Not applicable | more |
| V1758 — Right 3rd Seat Backrest Damaged | 8 | Not applicable | more |
| V1759 — Left 3rd Seat Cushion Damaged | 8 | Not applicable | more |
| V1760 — Right 3rd Seat Cushion Damaged | 8 | Not applicable | more |
| V1761 — Rear Head Restraints | 0 | Not Equipped (or removed) | more |



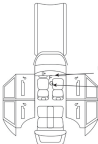
1 = Definitely 2 = Probably 3 = Possible

INTRUSION IT-1

| Location of Intrusion | Intruded Component | (All Measurements Are in Centimeters) | | | | Dominant Crush Direction |
|-----------------------|--------------------|---------------------------------------|---|----------------|-------------|--------------------------|
| | | Comparison Value | – | Intruded Value | = Intrusion | |
| 11 | Toe pan | 68 | – | 60 | = 8 | To rear |
| | | | – | | = | |
| | | | – | | = | |
| | | | – | | = | |
| | | | – | | = | |
| | | | – | | = | |
| | | | – | | = | |
| | | | – | | = | |
| | | | – | | = | |

OCCUPANT CONTACT WORKSHEET

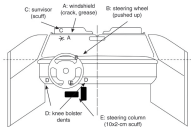
| Contact | Interior Component Contacted | Occupant No. if Known | Body Region if Known | Supporting Physical Evidence | Confidence Level of Contact Point |
|---------|-------------------------------|-----------------------|----------------------|-------------------------------|-----------------------------------|
| A | Windshield | 1 | Head | cracks, smudge | 1 |
| B | Steering wheel | 1 | Chest | Pushed up | 1 |
| C | Sunvisor | 1 | Head | Scuff | 1 |
| D | Knee bolster | 1 | Knees | Right and left portion -dents | 1 |
| E | Steering column | 1 | Leg | 10x2-cm scuff | 1 |
| F | Transmission lever | 1 | Hand | Bent to right | 1 |
| G | Cover over transmission lever | 1 | Hand | Scuff | 1 |
| H | | | | | |
| I | | | | | |
| J | | | | | |



F: transmission level
(bent to right)

G: cover over transmission lever
(scuff)

no evidence of belt use



C: sunvisor
(scuff)

A: windshield
(crack, grease)

B: steering wheel
(pushed up)

D: knee bolster
dents

E: steering column
(10x2-cm scuff)

Driver Airbag

ARROW NUMBER ON DRIVER SIDE:



Answer: ☐ 1
If yes, how many: _____

Answer: ☐ 2
If yes, how many: _____

Driver Airbag Seats



Rectangle A1149



Notes: 1 
 If you have many: _____

Notes: 1 
 If you have many: _____

Rectangle A1149 Sheet

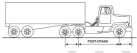
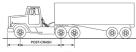
Single Sheet



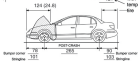
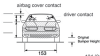
MEASUREMENTS IN CENTIMETERS



no imposition



MEASUREMENTS IN CENTIMETERS



WINDSHIELD MARK ON CASE VEHICLE:

unknown

Case # 338: Occupant # 1; Injury # 1

| Variable Number and Name | Code Value | Code Description | Other Options |
|-----------------------------------|------------|---------------------------------------|----------------------|
| V2101 — Injury Number | 01 | Injury #1 | more |
| V2102 — 1st Prob Contact Area | 10 | Sunvisor, fitting(s) &/or top molding | more |
| V2103 — 2nd Prob Contact Area | 12 | Windshield | more |
| V2104 — Primary OIC -body Region | 06 | Face | more |
| V2105 — Primary OIC -aspect | 19 | Superior/upper | more |
| V2106 — Primary OIC -lesion | 03 | Contusion | more |
| V2107 — Primary OIC -system/Organ | 09 | Integumentary | more |
| V2108 — Primary OIC -severity | 1 | Minor | more |
| V2109 — Primary OIC | FSCI1 | — | — |
| V2110 — Assoc OIC 1 -body Region | 99 | No injury | more |
| V2111 — Assoc OIC 1 -aspect | 99 | No injury | more |
| V2112 — Assoc OIC 1 -lesion | 99 | No injury | more |
| V2113 — Assoc OIC 1 -system/Organ | 99 | No injury | more |
| V2114 — Assoc OIC 1 -severity | 9 | Unknown | more |
| V2115 — Assoc OIC 1 | — | — | — |

Case # 338: Occupant # 1; Injury # 2

| Variable Number and Name | Code Value | Code Description | Other Options |
|-----------------------------------|------------|--|----------------------|
| V2101 — Injury Number | 02 | Injury #2 | more |
| V2102 — 1st Prob Contact Area | 44 | Transmission lever on floor or console | more |
| V2103 — 2nd Prob Contact Area | 27 | Console on floor or between seats | more |
| V2104 — Primary OIC -body Region | 23 | Wrist/hand | more |
| V2105 — Primary OIC -aspect | 18 | Right | more |
| V2106 — Primary OIC -lesion | 06 | Fracture | more |
| V2107 — Primary OIC -system/Organ | 19 | Skeletal | more |
| V2108 — Primary OIC -severity | 2 | Moderate | more |
| V2109 — Primary OIC | WRF52 | — | — |
| V2110 — Assoc OIC 1 -body Region | 99 | No injury | more |
| V2111 — Assoc OIC 1 -aspect | 99 | No injury | more |
| V2112 — Assoc OIC 1 -lesion | 99 | No injury | more |
| V2113 — Assoc OIC 1 -system/Organ | 99 | No injury | more |
| V2114 — Assoc OIC 1 -severity | 9 | Unknown | more |
| V2115 — Assoc OIC 1 | — | — | — |

Case # 338: Occupant # 1; Injury # 3

| Variable Number and Name | Code Value | Code Description | Other Options |
|-----------------------------------|------------|---------------------------|----------------------|
| V2101 — Injury Number | 03 | Injury #3 | more |
| V2102 — 1st Prob Contact Area | 66 | Steering wheel column | more |
| V2103 — 2nd Prob Contact Area | 48 | Knee restraint | more |
| V2104 — Primary OIC -body Region | 16 | Pelvic/hip | more |
| V2105 — Primary OIC -aspect | 18 | Right | more |
| V2106 — Primary OIC -lesion | 26 | Fracture with dislocation | more |
| V2107 — Primary OIC -system/Organ | 19 | Skeletal | more |
| V2108 — Primary OIC -severity | 3 | Serious | more |
| V2109 — Primary OIC | PRZS3 | — | — |
| V2110 — Assoc OIC 1 -body Region | 99 | No injury | more |
| V2111 — Assoc OIC 1 -aspect | 99 | No injury | more |
| V2112 — Assoc OIC 1 -lesion | 99 | No injury | more |
| V2113 — Assoc OIC 1 -system/Organ | 99 | No injury | more |
| V2114 — Assoc OIC 1 -severity | 9 | Unknown | more |
| V2115 — Assoc OIC 1 | — | — | — |

Case # 338: Occupant # 1; Injury # 4

| Variable Number and Name | Code Value | Code Description | Other Options |
|-----------------------------------|------------|---|----------------------|
| V2101 — Injury Number | 04 | Injury #4 | more |
| V2102 — 1st Prob Contact Area | 28 | Foot controls (including parking brake pedal) | more |
| V2103 — 2nd Prob Contact Area | 00 | No Contact/not applicable | more |
| V2104 — Primary OIC -body Region | 17 | Ankle/foot | more |
| V2105 — Primary OIC -aspect | 18 | Right | more |
| V2106 — Primary OIC -lesion | 06 | Fracture | more |
| V2107 — Primary OIC -system/Organ | 19 | Skeletal | more |
| V2108 — Primary OIC -severity | 2 | Moderate | more |
| V2109 — Primary OIC | QRFS2 | — | — |
| V2110 — Assoc OIC 1 -body Region | 99 | No injury | more |
| V2111 — Assoc OIC 1 -aspect | 99 | No injury | more |
| V2112 — Assoc OIC 1 -lesion | 99 | No injury | more |
| V2113 — Assoc OIC 1 -system/Organ | 99 | No injury | more |
| V2114 — Assoc OIC 1 -severity | 9 | Unknown | more |
| V2115 — Assoc OIC 1 | — | — | — |

































































STARFIRE PLT/B-LINE

VR











INFLATE TO 35 PSI

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